

Plague (*Yersinia pestis*)

Louisiana Office of Public Health Laboratory Services (LA SPHL) (504) 568-5371 or (504) 568-8102, 24 Hour Pager (504) 374-6669 or (877) 309-2867

**Louisiana Office of Public Health Infectious Disease Epidemiology
(800) 256-2748 (24 hours)**

Remember that these samples may be highly infectious! Extreme caution should be taken in collecting, preparing for shipment and transporting any material suspected of being contaminated with a biological agent.

Specimen Collection and Transport

Clinical:

Specimens best suited for culturing include: fluid aspirated from bubo, sputum and blood (multiple). Also, lymph node, bone marrow and lung tissues are suitable, but may be available only at autopsy. Swabs should be placed into Cary-Blair [enteric] transport media or, if that is unavailable, into any sterile container and transported to the LA SPHL as quickly as possible.

Reference cultures:

Any culture may be submitted to the LA SPHL for ruling in/out of *Y. pestis*. Cultures suspected of being *Yersinia pestis* can be submitted on a blood or chocolate agar slant.

Environmental samples:

Plague is enzootic in some southwestern states, and the risks of acquiring the disease are associated with contact between human and plague-susceptible rodents and their attendant fleas. If environmental sampling is indicated, consult the LA SPHL for guidelines on sample selection and submission.

Testing available:

Culture, isolate identification, real-time Polymerase Chain Reaction (PCR), Direct Fluorescent Antibody (DFA) and rapid direct antigen detection by Time Resolved Fluorescence (TRF).

Reporting:

All reporting times are the minimum time. Any individual specimen could take longer.

Yersinia pestis is not fastidious and may grow in 24-48 hours from clinical or environmental specimens. The LA SPHL can perform a DFA, real-time PCR and TRF testing on the organism as soon as growth is apparent. With these assays, a “*Yersinia pestis* Detected” could be reported in 4-6 hours after growth becomes apparent. Biochemical confirmation is final at 48 hours. DFA, real-time PCR and TRF can be performed on isolates upon receipt at the LA SPHL.